Public Service Commission
State of North Dakota

DOCKET FILE COPY ORIGINAL

State Capitol - 600 E. Boulevard
Bismarck, North Dakota 58505-0480
e-mail: msmail.sab@oracle.psc.state.nd
TDD 800-366-6888
Fax 701-328-2410
Phone 701-328-2400

Executive Secretary
Jon H. Mielke

January 3, 1997

Office of Secretary
FCC
1919 M St NW Rm 222
Washington D C 20554

RE: CC Docket No. 96-45

Enclosed is a Supplement to the Comments by the North Dakota Public Service Commission regarding universal service.

Sincerely,

Illona A. Jeffcoat-Sacco, Director
Public Utilities Division

sdh

Enclosures

Before the
Federal Communications Commission
Washington, D. C. 20554

In the Matter of
Federal-State Joint Board on
Universal Service

FCC 96-93

CC Docket No. 96-45

SUPPLEMENT TO THE COMMENTS BY THE NORTH DAKOTA PUBLIC SERVICE COMMISSION

January 3, 1997

In its initial comments of December 12, 1996, the North Dakota Public Service Commission (NDPSC) indicated that it would be conducting a public information exchange on December 18, 1996, and that, subsequent to that meeting, the NDPSC might file a supplement to its initial comments with the Common Carrier Bureau.

Our December 18 meeting was enlightening and several interested parties filed comments, either directly with the Common Carrier Bureau or with the NDPSC. In this submittal, we are forwarding those comments filed with the NDPSC.

PUBLIC SERVICE COMMISSION

Bruce Hagen	Susan E. Wefald	Leo M. Reinbold
Commissioner	President	Commissioner

Dickinson State University

Dickinson, North Dakota 58601

Stoxen Library
(701) 227-2135
Fax (701) 227-2006

Bruce Hagen, Commissioner
North Dakota Public Service Commission
North Dakota State Capitol
Bismarck, North Dakota
58505

December 17, 1996

Dear Mr. Hagen,

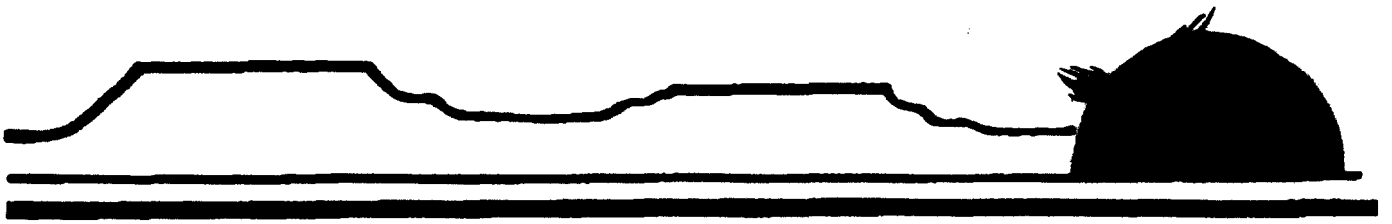
My name is Bernnett Reinke and I am Library Director at Dickinson State University, Dickinson North Dakota. I would like to give my support for a discounts for telecommunications services to schools and libraries as proposed in the Telecommunications Act of 1996.

In this time of tight monies, libraries are finding it extremely difficult to position themselves with computer technology to address the changing information needs of library users. Current library funding for North Dakota libraries does not adequately address the spiraling costs of library materials or the ongoing costs of everchanging computer hardware and software. Today's library users are demanding access to a wide variety of research databases both on and off the the Internet. Many publishers including the federal government are putting information for users only in computer format and in some cases only on the Internet. North Dakota libraries must have affordable telecommunications services so that library users can be provided with access to these valuable research tools. I encourage you to support cost discounts for telecommunication services for North Dakota schools and libraries.

Sincerely,

Bernnett Reinke
Library Director

cc: Comm
Legal
PUD



West River Regional Medical Center

Route 2, Box 124 Hettinger, ND 58639 701 567-4561

December 19, 1996

TO: Illona, North Dakota Public Utilities Commission
via FAX 701-328-2410

FROM: Jim Long, Administrator/CEO

RE: Telecommunications Act of 1996

The blizzard conditions in North Dakota made it unadvisable to travel the 70 miles to Dickinson, the closest IVN site to us, for the session on the Telecommunications Act of 1996. We are, therefore, submitting our comments in written form for inclusion with your offices comments to the FCC.

The storm was a good reminder of the reasons that enhancement of telecommunications and telemedicine in necessary and important to rural locations. We really wanted to be at the teleconference but our remoteness and the weather became hurdles that we couldn't cross and prevented our participation.

Using the next best available alternative, voice lines and a FAX machine, we are hereby submitting our comments on telecommunications and telemedicine.

1. Project name of our telemedicine effort: West River Regional Medical Center-Telis Link. Our medical system consists of an acute care hospital and 9 clinics (8 owned and 1 affiliated) with a full range of primary care services. Our patient population is approximately 30,000 people spread out over 18,000 square miles. Our remoteness and sparse population has made the delivery of quality healthcare a challenge. We are a long time user of telecommunications to enhance healthcare delivery but believe that much more can be done to make healthcare more accessible to rural populations.

2. Project sites:

Hettinger, ND (home site)	Lemmon, SD
Mott, ND	Bison, SD
New England, ND	McIntosh, SD
Bowman, ND	Isabel, SD
Scranton, ND	

3. Closest city: Bismarck, ND. Miles away: 150 miles. (Dickinson, a larger rural community, is approximately 70 miles away.)

4. Telecommunications service provider: Consolidated Telephone/US West.

5. Level of service: Voice.

6. Charges for services:

C: Comm
Legal
Illona, Pat

ive)

013 PU-439-96-149 3 pages
12/20/96
West River Regional Medical Cent
Comments

Monthly charge - $30.00 to $40.00 per dial-up line.

Usage charge - $.16/min discounted to $.115/min. (long distance)

Distance component - Yes, for long distance (see above)

Installation fee - Yes (but don't know, would need to get from CTC).

Regular rate tarriffed or discounted? - Discounted.

7. Use of telecommunications for project:

   a. Teleradiology - Transmit x-ray images between Hettinger, Lemmon, Bowman and Isabel sites. Do plan to add other sites as affordable to do so.

   b. Telemedicine - Interactive voice and video between Hettinger and its tertiary center, St. Alexius of Bismarck.

   c. Telecommunication-Data - Planned connection of computer systems between the Medical Center and its eight clinic sites. Eventually are hoping to have electronic medical record that can be accessed from any of our sites.

   d. Telecommunication-Voice - Just plain old talking to people will not be replaced. We need to be able to communicate between our eight communities as well as the patients outside those city boundaries and to the tertiary care center in Bismarck.

   e. Emergency Response-Lifeline - We have over 100 units out in our rural communities to insure a response should a patient/subscriber be unable to get to a telephone to summon help. Through pushing a button that they wear around their neck, a patient can summon help. Approximately half of our units need dial in through a long-distance line.

   f. Other medical - In addition to the preceding, we also send medical data over our telephone lines. We FAX EKG strips from our ICU to cardiologists, we send EEG readings to neurologists, we FAX various medical records to our clinics as well as to the tertiary center, we send fetal monitoring data to the neonate unit of the tertiary center, we have remote diagnostics performed on the computers of various medical equipment, and we obtain information through a MEDLINE connection in our library for unusual medical situations. Of course, in addition to these higher-tech items, our staff also uses the "plain old telephone" to consult with each other as well as sub-specialty physicians in the tertiary care center.

   g. Education - Through a combination of telephone lines and satellite transmission we obtain education for staff. We are a participant of the MedStar Network as well as ETN (Education Telephone Network).

8. Use less bandwidth than now?: No, for each telecommunication item we are using, we are using the lowest bandwidth that is workable. We would like to send 2K teleradiology images but, due to the time delay over standard voice lines, we simply can not transmit that level of quality image. A T-1 line is desired to make transmission of high quality images feasible from a time standpoint but at a cost of $15 or more per mile per month, the cost makes such non-feasible from an economics standpoint.

   To put a proper perspective to the comparisons of speed for sending teleradiology images, I offer the following. In a typical situation we

are usually sending 2 to 3 images for a consultation. If we were to have these images sent as 2K (diagnostic level) images and sent over standard voice lines, it would take approximately 40 minutes per image or a total of 80 to 120 minutes to send and receive these images. In most situations, neither the patient nor the physician is willing to sit around for 1 1/2 to 2 hours to wait for the transmission. If we were sending those images to the tertiary center (150 miles away), we could drive the images there almost as fast.

9. What if greater bandwidth than experienced currently?: As explained in #8, it may speed the transmission of quality images to better support the healthcare professionals out "in the field" delivering care. This may help reduce unnecessary diagnostic testing because sufficient detail is transmitted for a truly diagnostic quality image to the radiologist.

   For the example given under item #8, a T-1 line would reduce the time to send 3 2K radiology images from 120 minutes to less than 5 minutes.

   Greater bandwidth would also increase the probability of more interactive video to remote sites. This may make consultations between medical professionals within the system as well as at the tertiary center more immediate and effective. It would also improve our ability to provide in-house education opportunities to support staff in our remote locations.

10. Do we have e-mail?: Yes. We have an internal e-mail system through our computer system and a limited connection for external e-mail.

11. Do we have Internet access?: Yes. We obtain Internet access through Consolidated Telephone at a fairly reasonable cost of $30/month base plus $5 for each e-mail address. Presently we have 5 staff with external e-mail addresses/Internet access.

12. Purposes of Internet: This is a new area for us (we only recently got "on the net") but uses to date include:
    - Physician Recruitment
    - Policy research (with "usenet news")
    - Medical document research
    - Committee correspondence
    - E-Mail

In summary, we are presently using telecommunications for many more applications in our medical center and clinics than just voice communication. We know and desire to further expand our use of telecommunications and telemedicine but are limited by the cost factors of doing so. In our rural area we must pay for all the distance between light bulbs for our remote and sparsely populated area.

This puts us at a severe disadvantage to our urban brothers and sisters as they have high people/patient concentrations over very short distances. To put the issue into proper perspective, our patient service area is 18,000 square miles. Within that area is approximately 30,000 patients/residents. Telecommunication charges for "long-distance" or for band-width at a "per mile" basis significantly limit our ability to use telecommunications to provide access to our patient population.

In the past our nation once pulled together in a major effort to provide rural electrification to the nation. Electricity was determined an essential an important technology that was expanded to the rural countryside. Maybe we should look at the information and technology of telecommunications in the same manner. For the betterment of our nation, to make it more competitive to the world marketplace, we should embark on an effort of "rural datafication". Perhaps the ability of our country to communicate and transmit data is as important in current history as electricity was in the past.